

(3/8/10)

VPDES REISSUANCE Tracking Sheet

Facility Name: OPEQUON WRF
 Owner: FWSA
 Expiration Date: 6/30/11

County: FREDERICK
 Permit #: VA0065552
 Permit Writer: thw

	Date
Reissuance Reminder Package Sent (START PP FILE, UPDATE CEDS)	7/7/10
Application Due	1/1/10
Email or Phone Call to Offer App. Assistance (One Month Prior to Application Due Date)	N/A
Application Received (UPDATE CEDS)	8/23/10
Warning Letter Sent (if necessary)	N/A
SCC Certification Proof (for PVOTWs with >50 residences)	N/A
Additional Information Requested	9/7/10
Additional Information Received	9/17/10
Verification that all annual permit maintenance fees have been paid	7/29/10
Application Considered Complete (Notify Applicant)	11/7/10
Application to VDH (if not sent by owner)	N/A
Comments Received from VDH	1/1/10
Application Reviewed by Planning - WQMP applicable? <u>ON</u>	11/5/10
Application Reviewed by TMDL Program - Impaired? <u>ON</u>	11/5/10
Application Reviewed by TMP Program - TMP necessary? <u>ON</u>	thw
Flow Frequency Requested	thw
Flow Frequency Received	thw
Site Inspection	2/24/11
Site Inspection Report	3/1/11
SIGNIFICANT CHANGES: Notify Local Government of Receipt of Application	N/A
SIGNIFICANT CHANGES: Contact Commissioner of Revenue for Riparian/Adjacent Property Owners	N/A
List of Riparian/Adjacent Property Owners Received	N/A
SIGNIFICANT CHANGES: Notify Riparian/Adjacent Property Owners of Receipt of Application	N/A
SIGNIFICANT CHANGES/ON T&E List: Notify DGIF and/or DCR	12/6/10
Comments Received from DGIF	2/17/11
Comments Received from DCR	1/5/11
Draft Permit & Fact Sheet Prepared	12/17/10
Draft Permit & Fact Sheet To Peer Review	12/17/10
Draft Permit & Fact Sheet to BDK for review	12/21/10 → 3/1/11
Draft Permit & Fact Sheet to Planning, Pretreatment, & Inspectors for review	3/3/11
Planning Comments Received	3/5/11
Pretreatment Comments Received	12/7/11
Inspectors Comments Received	3/16/11
Draft Permit, Fact Sheet, & Public Notice Information to Owner	3/2/11
Draft Permit & Fact Sheet Concurrence Received from Owner (within 14 days)	3/1/11
MINORS WITH TMDL EFFLUENT LIMIT & ALL MAJORS: Application, DP, FS, & Checklist to EPA	3/3/11
EPA Comments Received	3/28/11
Public Notice to Newspaper (Electronic copy of Public Notice to Deborah Hawkins-CO)	3/10/11
Public Notice to Local Government, PDCs, & etc.	3/10/11
Newspaper Contacted to Verify Public Notice Receipt & Publication	3/10/11
First Public Notice Date	3/15/11
Verification from Newspaper	3/24/11
Public Notice Period Complete (Add Public Notice dates to Fact Sheet)	4/14/11
Enter All Applicable Information into CEDS (Events, Special Conditions, Billing Info, & etc.)	4/20/11
Enter Signature & Other Applicable Dates into CEDS (After signed)	

Concurrences

Signature	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>
Date	4/26/11	4/21/11	4/26/11	4/27/11	4/27/11



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

Douglas W. Domenech
Secretary of Natural Resources

4411 Early Road, P.O. Box 3000, Harrisonburg, Virginia 22801
(540) 574-7800 Fax (540) 574-7878
www.deq.virginia.gov

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

April 27, 2011

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. Jesse Moffett, Executive Director
Frederick-Winchester Service Authority
P.O. Box 43
Winchester, VA 22604

Re: Reissuance, VPDES Permit No. VA0065552, Opequon Water Reclamation Facility.

Dear Mr. Moffett:

The enclosed permit has been approved. This permit action involved reissuing an existing permit to discharge treated wastewater. The first DMR for the month ending July 31, 2011 is due by August 10, 2011.

DEQ has launched an e-DMR program that allows you to submit the effluent data electronically. There are many benefits to both DEQ and the permittee when e-DMR is utilized for submissions:

- 1) Fewer revisions for data since the e-DMR program automatically flags omissions before the data are submitted;
- 2) Cost savings on postage, copying, and paper;
- 3) No concerns about using the most current DMR – e-DMR refreshes the required parameters automatically when changes are needed;
- 4) Submittals can be made on a timelier basis; and
- 5) Electronic signatures from multiple people are allowed and e-DMR can be accessed from multiple computer locations.

A hard copy DMR is not enclosed; however, an electronic DMR is available through e-DMR. We expect every permittee to use e-DMR as permits are reissued and exceptions will only be allowed on a case by case basis. If you have not already done so, please register for e-DMR participation now. This should allow the e-DMR application to be processed prior to the first DMR due date for this reissuance to avoid noncompliance with the permit reporting requirements. Please contact Brandon Kiracofe at (540) 574-7892 or brandon.kiracofe@deq.virginia.gov as soon as possible if you would like to request an exception from using eDMR.

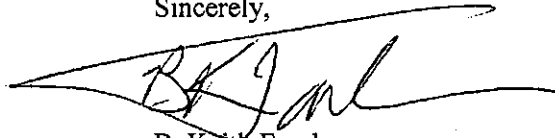
Details on eDMR can be found at <http://www.deq.virginia.gov/water/edmrfaq.html> and our regional e-DMR administrator, Linda Ferguson-Davie (540-574-7806, linda.ferguson-davie@deq.virginia.gov) can also assist you. Please note that parameters with a sampling frequency less than monthly, the parameter will only be reflected in the e-DMR in the months designated by the permit.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternatively, any owner under §§ 62.1 - 44.16, 62.1 - 44.17, and 62.1 - 44.19 of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have questions about this permit, please do not hesitate to contact Brandon Kiracofe at (540) 574-7892 or brandon.kiracofe@deq.virginia.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Keith Fowler', is written over a horizontal line.

B. Keith Fowler
Deputy Regional Director

Enclosure: Permit No. VA0065552
cc: EPA, Region III - 3WP12 (electronic)
L. Ferguson-Davie - VRO
FileNet - VA0065552

MEMORANDUM

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE

4411 Early Road - P.O. Box 3000

Harrisonburg, VA 22801

SUBJECT: Reissuance of VPDES Permit No. VA0065552, Opequon Water Reclamation Facility

TO: Deputy Regional Director

FROM: Regional Water Permits Manager *Brady D. Lipe*

DATE: April 25, 2011

COPIES: VRO Permit Processing File

Other Agency Comments:

EPA had no objections to the draft permit.

See Item 27 of the Fact Sheet for DGIF and DCR comments on the draft permit.

No other agency comments were received.

Public Notice Comments:

No comments were received.

Staff Comments:

None



COMMONWEALTH of VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VA0065552

Effective Date: July 1, 2011

Expiration Date: June 30, 2016

AUTHORIZATION TO DISCHARGE UNDER THE
VIRGINIA POLLUTANT DISCHARGE ELIMINATION SYSTEM
AND


THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the Clean Water Act as amended and pursuant to the State Water Control Law and regulations adopted pursuant thereto, the following owner is authorized to discharge in accordance with the information submitted with the permit application, and with this permit cover page, Part I - Effluent Limitations and Monitoring Requirements, and Part II - Conditions Applicable To All VPDES Permits, as set forth herein.

Owner: **Frederick-Winchester Service Authority**
Facility Name: **Opequon Water Reclamation Facility**
County: **Frederick**
Facility Location: **3100 Berryville Pike, Winchester**

The owner is authorized to discharge to the following receiving stream:

Stream: **Opequon Creek**
River Basin: **Potomac**
River Subbasin: **Potomac**
Section: **11**
Class: **IV**
Special Standards: **pH**



Amy T. Owens, Regional Director
Valley Regional Office

April 27, 2011

Date

Permit Required Special Condition and e-DMR Due Dates*

Facility Name: Opequon Water Reclamation Facility **Permit No.:** VA0065552

Special Condition	Due Date
Submit Revised O&M Manual	8/30/2011
Submit 1st Quarterly Chronic Toxicity Test	11/10/2011
Submit Significant Discharger Waste Survey	12/28/2011
Submit Attachment A WQC Monitoring	1/10/2012
Submit 1st Year Pretreatment Annual Report	1/31/2012
Submit 2nd Quarterly Chronic Toxicity Test	2/10/2012
Submit 1st Year Public Notice for SIUs in SNC	3/31/2012
Submit 3rd Quarterly Chronic Toxicity Test	5/10/2012
Submit Reevaluation of Pretreatment Local Limits	7/1/2012
Submit 4th Quarterly Chronic Toxicity Test	8/10/2012
Submit 5th Quarterly Chronic Toxicity Test	11/10/2012
Submit 2nd Year Pretreatment Annual Report	1/31/2013
Submit 6th Quarterly Chronic Toxicity Test	2/10/2013
Submit 2nd Year Public Notice for SIUs in SNC	3/31/2013
Submit 7th Quarterly Chronic Toxicity Test	5/10/2013
Submit 8th Quarterly Chronic Toxicity Test	8/13/2013
Submit 9th Quarterly Chronic Toxicity Test	11/10/2013
Submit 3rd Year Pretreatment Annual Report	1/31/2014
Submit 10th Quarterly Chronic Toxicity Test	2/10/2014
Submit 3rd Year Public Notice for SIUs in SNC	3/31/2014
Submit 11th Quarterly Chronic Toxicity Test	5/10/2014
Submit 12th Quarterly Chronic Toxicity Test	8/13/2014
Submit 13th Quarterly Chronic Toxicity Test	11/10/2014
Submit 4th Year Pretreatment Annual Report	1/31/2015
Submit 14th Quarterly Chronic Toxicity Test	2/10/2015
Submit 4th Year Public Notice for SIUs in SNC	3/31/2015
Submit 15th Quarterly Chronic Toxicity Test	5/10/2015
Submit 16th Quarterly Chronic Toxicity Test	8/13/2015
Submit 17th Quarterly Chronic Toxicity Test	11/10/2015
Submit VPDES Permit Application	1/1/2016
Submit 5th Year Pretreatment Annual Report	1/31/2016
Submit 18th Quarterly Chronic Toxicity Test	2/10/2016
Submit 5th Year Public Notice for SIUs in SNC	3/31/2016
Submit 19th Quarterly Chronic Toxicity Test	5/10/2016

*This list is intended to assist the permittee; however, it is not intended to supersede any permit requirements.

e-DMR Monitoring Periods and Due Dates Based on Calendar Reporting				
Permit Effective Date	Monitoring Start Date	Reporting Frequency	1 st DMR Due Date	Monitoring Period Example
7/1/2011	7/1/2011	Monthly	8/10/2011	7/1/2011 - 8/31/2011
7/1/2011	7/1/2011	Quarterly (TMP)	11/10/2011	7/1/2011 - 9/30/2011
7/1/2011	1/1/2011	Annual	1/10/2012	1/01/2011 - 12/31/2011

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning with the permit's effective date and lasting until the permit's expiration date, the permittee is authorized to discharge from Outfall 001.

This discharge shall be limited and monitored as specified below:

<u>EFFLUENT CHARACTERISTICS</u>		<u>DISCHARGE LIMITATIONS</u>				<u>MONITORING REQUIREMENTS</u>	
	<u>Monthly Average</u>	<u>Weekly Average</u>		<u>Minimum</u>	<u>Maximum</u>	<u>Frequency</u> ¹	<u>Sample Type</u>
Flow (MGD) ^a	NL	NA		NA	NL	Continuous	TIRE
pH (standard units)	NA ¹	NA		6.5	9.5	1/Day	Grab
BOD ₅ (Jun-Nov) ^c	7 mg/L 207 kg/d	10 mg/L	480 kg/d	NA	NA	3 Days/Week	24 HC
CBOD ₅ (Dec-May) ^{c,d}	25 mg/L 1200 kg/d	40 mg/L	1900 kg/d	NA	NA	1/Week	24 HC
Suspended Solids ^c	29 mg/L 1400 kg/d	44 mg/L	2100 kg/d	NA	NA	1/Month	24 HC
E. coli (N/100 mL) ^b	122 Geometric Mean	NA		NA	NA	4/Month 10 a.m. to 4 p.m.	Grab
Total Residual Chlorine (TRC)(mg/L) ^{b,c}	0.0076	0.0081		NA	NA	1/2 Hours	Grab
Dissolved Oxygen (mg/L)	NA	NA		7.1	NA	1/Day	Grab
Ammonia-N (Jun-Nov) (mg/L) ^c	1.6	2.2		NA	NA	1/Day	24 HC
Ammonia-N (Dec-May) (mg/L) ^c	2.9	3.7		NA	NA	1/Day	24 HC
Total Phosphorus – Year to Date (mg/L) ^c	NL	NA		NA	NA	1/Month	Calculated
Total Phosphorus – Calendar Year (mg/L) ^c	0.3	NA		NA	NA	1/Year	Calculated
Total Nitrogen – Year to Date (mg/L) ^c	NL	NA		NA	NA	1/Month	Calculated
Total Nitrogen – Calendar Year (mg/L) ^c	3.0	NA		NA	NA	1/Year	Calculated
Whole Effluent Toxicity (TU _c)	NA	NA		NA	1.56	See Part I.E.2.	24 HC

NL = No Limitation, monitoring required NA = Not Applicable TIRE = Totalizing, Indicating, and Recording Equipment

1/Year = Annual sampling with the results submitted with the DMR due January 10th of each year

4/Month = 4 samples taken weekly during the calendar month

24 HC = 24-Hour Composite

- The design flow of this treatment facility is 12.6 MGD. See Part I.F.1. for additional requirements related to facility flows.
- See Part I.B. for disinfection requirements
- See Part I.C. for additional monitoring and reporting instructions.
- At least 85% removal for CBOD₅ must be attained for this discharge.
- In addition to any Total Nitrogen or Total Phosphorus concentration limits (or monitoring requirements without associated limits) listed above, this facility has Total Nitrogen and Total Phosphorus calendar year load limits associated with this outfall included in the current Registration List under registration number VAN010057, enforceable under the General VPDES Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia.
- There shall be no discharge of floating solids or visible foam in other than trace amounts.

B. ADDITIONAL TRC LIMITATIONS AND MONITORING REQUIREMENTS

1. The permittee shall monitor the TRC at the outlet of each operating chlorine contact tank 1/Hour by grab sample.
2. No TRC sample collected at the outlet of the chlorine contact tank shall be less than 0.25 mg/L.
3. No TRC sample collected at the outlet of the chlorine contact tank shall be less than 0.25 mg/L unless the E. coli in the final effluent is also less than 122 N/100 mL. If the TRC concentration after the chlorine contact tank and prior to dechlorination is less than 0.25 mg/L, an E. coli sample of the final effluent may be taken within 15 minutes. If the E. coli sample is less than 122 N/100 mL, then the original TRC sample shall not be reported as an excursion.
4. If dechlorination facilities exist, the samples above shall be collected prior to dechlorination.
5. If chlorine disinfection is not used, E. coli shall be limited and monitored by the permittee as specified below:

	<u>Discharge Limit</u>	<u>Monitoring Requirements</u>	
	<u>Monthly Average</u>	<u>Frequency</u>	<u>Sample Type</u>
E. coli (N/100 mL)	122 (Geometric Mean)	1/Day Between 10 a.m. and 4 p.m.	Grab

This E. coli requirement, if applicable, shall substitute for the TRC and E. coli requirements specified elsewhere in this permit.

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - ADDITIONAL INSTRUCTIONS

1. Quantification Levels (QLs) shall be less than or equal to the following concentrations:

<u>Effluent Characteristic</u>	<u>QL</u>
(C)BOD ₅	5 mg/L
Suspended Solids	1.0 mg/L
Chlorine	0.10 mg/L
Ammonia-N	0.20 mg/L

2. Compliance Reporting Under Part I.A.

- a. Monthly Average -- Compliance with the monthly average limitations and/or reporting requirements for the parameters listed in Part I.C.1. above shall be determined as follows: All data below the test method QL shall be treated as zeros. All data equal to or above the test method QL shall be treated as reported. Arithmetic concentration and/or loading averages (as applicable) shall be calculated using all reported data for the month, including the defined zeros. These averages shall be reported on the Discharge Monitoring Report (DMR). If all data are less than the test method QL, then "<QL" shall be reported on the DMR for the concentration and/or loading values. Otherwise the average values shall be reported as calculated.
- b. Maximum Weekly Average -- Compliance with the weekly average limitations and/or reporting requirements for the parameters listed in Part I.C.1. above shall be determined as follows: All data below the test method QL shall be treated as zeros. All data equal to or above the test method QL shall be treated as reported. Arithmetic concentration and/or loading averages (as applicable) shall be calculated using all reported data, including the defined zeros, collected within each complete calendar week entirely contained within the reporting month. The maximum weekly concentration and/or loading averages thus determined shall be reported on the DMR. If all data are less than the test method QL, then "<QL" shall be reported on the DMR for both the concentration and/or loading values. Otherwise the average values shall be reported as calculated.

- c. Any single datum required shall be reported as "<QL" if it is less than the test method QL. Otherwise, the numerical value shall be reported.
- d. The permittee shall report at least the same number of significant digits as the permit limit for a given parameter. Regardless of the rounding convention used (i.e., 5 always rounding up or to the nearest even number) by the permittee, the permittee shall use the convention consistently, and shall ensure that consulting laboratories employed by the permittee use the same convention.
- e. Nutrient reporting calculations:

For each calendar month, the DMR shall show the calendar year-to-date average concentration (mg/L) calculated in accordance with the following formula:

$$AC_{avg}\text{-YTD} = (\sum_{(\text{Jan-current month})} MC_{avg}) \div (\# \text{ of months})$$

where:

$AC_{avg}\text{-YTD}$ = calendar year-to-date average concentration (mg/L)

MC_{avg} = monthly average concentration (mg/L) as reported on DMR

The Total Nitrogen (TN) and Total Phosphorus (TP) average concentrations (mg/L) for each calendar year (AC) shall be shown on the December DMR due January 10th of the following year. These values shall be calculated in accordance with the following formula:

$$AC_{avg} = (\sum_{(\text{Jan-Dec})} MC_{avg}) \div 12$$

where:

AC_{avg} = calendar year average concentration (mg/L)

MC_{avg} = monthly average concentration (mg/L) as reported on DMR

For TP, all daily concentration data below the quantification level (QL) for the analytical method used shall be treated as half the QL. All daily concentration data equal to or above the QL for the analytical method used shall be treated as it is reported.

For TN, if none of the daily concentration data for the respective species (i.e., TKN, Nitrates/Nitrites) are equal to or above the QL for the respective analytical methods used, the daily TN concentration value reported shall equal one half of the largest QL used for the respective species. If one of the data is equal to or above the QL, the daily TN concentration value shall be treated as that data point is reported. If more than one of the data is above the QL, the daily TN concentration value shall equal the sum of the data points as reported.

D. PRETREATMENT PROGRAM REQUIREMENTS

1. The permittee's pretreatment program has been approved. The program is an enforceable part of this permit. The permittee shall:
 - a. Implement a pretreatment program that complies with the Clean Water Act, Water Control Law, State regulations and the approved program.

- b. Submit to the DEQ-Valley Regional Office, an annual report that describes the permittee's program activities over the previous year. The annual report shall be submitted no later than January 31st of each year and shall include:
- (1) An updated list of the Significant Industrial Users* to the treatment works showing the categorical standards and local limits applicable to each;
 - (2) A summary of the compliance status of each Significant Industrial User with pretreatment standards and permit requirements;
 - (3) A summary of the number and types of Significant Industrial User sampling and inspections performed by the POTW;
 - (4) All information concerning any interference, upset, VPDES permit or Water Quality Standards violations directly attributable to Significant Industrial Users and enforcement actions taken to alleviate said events;
 - (5) A description of all enforcement actions taken against Significant Industrial Users over the previous 12 months;
 - (6) A summary of any changes to the submitted pretreatment program that have not been previously reported to the DEQ-Valley Regional Office;
 - (7) A summary of the permits issued to Significant Industrial Users since the last annual report;
 - (8) POTW and self-monitoring results for Significant Industrial Users determined to be in significant non-compliance during the reporting period;
 - (9) Results of the POTW's influent/effluent/sludge sampling, not previously submitted to DEQ;
 - (10) Copies of newspaper publications of all Significant Industrial Users in significant non-compliance during the reporting period. This is due no later than March 31st of each year; and
 - (11) Signature of an authorized representative.
- c. Within 180 days of the effective date of this permit, submit to the DEQ-Valley Regional Office a survey of all Industrial Users discharging to the POTW. The information shall be submitted to the POTW on the DEQ's Discharger Survey Form or an equivalent form that includes the quantity and quality of the wastewater. Survey results shall include the identification of significant industrial users of the POTW.
- In lieu of the survey, the permittee may elect to develop, submit for approval and implement a plan to continuously survey the industrial community in their jurisdiction.
- d. Submit any changes to the approved pretreatment program to the DEQ-Valley Regional Office and obtain approval before implementation of the changes.
- e. Ensure all Significant Industrial Users' permits are issued and reissued in a timely manner and that the Significant Industrial User permits issued by the POTW are effective and enforceable.
- f. Inspect and sample all Significant Industrial Users at a minimum of once a year.
- (1) Sampling shall include all regulated parameters, and shall be representative of the wastewater discharged.
 - (2) Inspection of the Significant Industrial Users shall cover all areas which could result in wastewater discharge to the treatment works including manufacturing, chemical storage, pretreatment facilities, spill prevention and control procedures, hazardous waste generation and Significant Industrial User's self-monitoring and records.
- g. Implement the reporting requirements of Part VII of the VPDES Permit Regulation.
- h. Review the Enforcement Response Plan (ERP) and ensure it meets state and federal regulatory requirements. The approved ERP is an enforceable part of this permit and shall be implemented.

- i. Develop local limits or reevaluate local limits using current influent, effluent and sludge monitoring data and submit the data and results of the evaluation to the DEQ-Valley Regional Office within one year of the effective date of this permit. All Significant Industrial Users shall be sampled at the end of any categorical process and at the entrance to the treatment works.
 - j. Ensure that adequate resources are available to implement the approved program.
 - k. Meet all public participation requirements and annually public notice Significant Industrial Users in significant non-compliance with pretreatment standards and requirements for the previous 12 months.
2. The DEQ may require the POTW to institute changes to its pretreatment program:
- a. If the approved program is not implemented in a way satisfying the requirements of the Clean Water Act, Water Control Law or State regulations;
 - b. If problems such as pass-through, interference, water quality standards violations or sludge contamination develop or continue; or
 - c. If federal, state or local requirements change.

* A Significant Industrial User is one that:

- (a) Has a process wastewater** flow of 25,000 gallons or more per average work day;
- (b) Contributes a process wastestream which makes up 5% or more of the average dry weather hydraulic or organic capacity of the POTW;
- (c) Is subject to the categorical pretreatment standards; or
- (d) Has significant impact, either singularly or in combination with other Significant Dischargers, on the treatment works or the quality of its effluent.

** Process wastewater excludes sanitary wastewater, noncontact cooling water and boiler blowdown.

E. WHOLE EFFLUENT TOXICITY (WET) REQUIREMENTS

1. In accordance with the chronic WET test report schedule included in Part I.E.2., the permittee shall conduct chronic toxicity tests using 24-hour flow-proportioned composite samples of final effluent from Outfall 001.

The chronic toxicity tests to use are:

Chronic 3-Brood Static Renewal Survival and Reproduction Test using *Ceriodaphnia dubia*

Chronic 7-Day Static Renewal Survival and Growth Test using *Pimephales promelas*

Each test shall be performed with a minimum of 5 dilutions, derived geometrically, in order to determine the No Observed Effect Concentration (NOEC) for survival and reproduction. The WET limit NOEC must be represented by a dilution, which must also be the middle dilution if the WET limit NOEC is less than 100%. Express the results as Chronic Toxicity Units (TU_c) by dividing 100/NOEC. Report the LC₅₀ for each chronic test at the 48-hour point, and the IC₂₅, if calculable, with the NOEC in the required test report.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

2. Chronic WET Test Report Schedule: The permittee shall supply 1 copy of the test report for the toxicity tests specified in Part I.E.1. in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Report Submittal Dates</u>
1 st Quarter	July 1, 2011 – September 30, 2011	With the DMR for the month following the month in which the tests were conducted
Quarterly thereafter	Every quarter following the previous quarter until there are a minimum of 4 consecutive quarters completed where the $TU_c = 1.0$	With the DMR for the month following the month in which the tests were conducted
1 st Annual	If 4 consecutive quarters are completed where the $TU_c = 1.0$, then the following January – March	With the DMR for the month following the month in which the tests were conducted
Annually thereafter	During the first calendar quarter of each year	With the DMR for the month following the month in which the tests were conducted

3. Should chronic WET monitoring result in an $LC_{50} \leq 100\%$ effluent, the permittee shall commence quarterly acute toxicity tests using 24-hour flow-proportioned composite samples of final effluent collected from Outfall 001. This monitoring shall be in accordance with the acute toxicity WET test report schedule included in Part I.E.4.

The acute toxicity tests to use are:

48-Hour Static Acute test using *Ceriodaphnia dubia*

48-Hour Static Acute test using *Pimephales promelas*

Each test shall be performed with a minimum of 5 dilutions, derived geometrically, with a minimum of 4 replicates per dilution and a minimum of 5 organisms per replicate for calculation of a valid No Observed Adverse Effect Concentration (NOAEC). Express the results as acute Toxicity Units (TU_a) by dividing $100/NOAEC$. The LC_{50} should also be determined, noted, and submitted in the required test report. Tests in which control survival is less than 90% are not acceptable.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

4. Acute WET Test Report Schedule: The permittee shall supply 1 copy of the test report for the toxicity tests specified in Part I.E.3. in accordance with the following schedule:

<u>Monitoring Period</u>	<u>Testing Period</u>	<u>Report Submittal Dates</u>
1 st Quarter	The next scheduled WET testing quarter following a determination where the chronic 48-Hour $LC_{50} \leq 100\%$ effluent	With the DMR for the month following the month in which the tests were conducted
Quarterly thereafter	Every quarter following the previous quarter	With the DMR for the month following the month in which the tests were conducted

5. The permit may be modified or revoked and reissued to include acute WET limits, or pollutant-specific limits in lieu of acute or chronic WET limits, should it be demonstrated that toxicity is due to specific parameters. The pollutant-specific limits must control the toxicity of the effluent.

F. OTHER REQUIREMENTS AND SPECIAL CONDITIONS

1. 95% Capacity Reopener -- A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to:

Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

when the monthly average flow influent to the wastewater treatment plant reaches 95 percent of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the DEQ-Valley Regional Office no later than 90 days from the third consecutive month for which the flow reached 95 percent of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

2. Indirect Dischargers -- The permittee shall provide adequate notice to the DEQ-Valley Regional Office of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.

Adequate notice shall include information on 1) the quality and quantity of effluent introduced into the treatment works, and 2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

3. Materials Handling/Storage -- Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.
4. Operations and Maintenance (O&M) Manual Requirements --
 - a. The permittee shall maintain a current and approved O&M Manual for the treatment works. This manual shall detail the practices and procedures which will be followed to ensure compliance with the requirements of this permit. This manual shall include, but not necessarily be limited to, the following items:
 - (1) Treatment system design, treatment system operation, routine preventive maintenance of units within the treatment system, critical spare parts inventory and record keeping;
 - (2) Techniques to be employed in the collection, preservation, and analysis of effluent samples (and sludge samples if sludge analyses are required);

- (3) Procedures for handling, storing, and disposing of all wastes, fluids, and pollutants characterized in Part I.F.3 that will prevent these materials from reaching state waters; and
- (4) Procedures for documenting compliance with the permit requirement that there shall be no discharge of floating solids or visible foam in other than trace amounts.

The permittee shall operate the treatment works in accordance with the approved O&M Manual. Any changes in the practices and procedures followed by the permittee shall be documented and submitted for DEQ approval within 90 days of the effective date of the changes. Upon approval of the submitted manual changes, the revised manual becomes an enforceable part of the permit. Noncompliance with the O&M Manual shall be deemed a violation of the permit.

- b. Within 60 days of the effective date of the permit, the permittee shall verify to DEQ that the requirements of Part I.F.4.a.(4) are addressed, or submit to the DEQ-Valley Regional Office for approval revisions to the O&M Manual that address these requirements.
5. Certificate to Construct (CTC) / Certificate to Operate (CTO) Requirement -- The permittee shall, in accordance with the DEQ Sewage Collection and Treatment Regulation (9 VAC 25-790), obtain a CTC and a CTO prior to constructing and operating the wastewater treatment works. Noncompliance with the CTC or CTO shall be deemed a violation of the permit.
6. Sludge Management Plan (SMP) Requirement -- The permittee shall conduct all sewage sludge use or disposal activities in accordance with the SMP approved with the reissuance of this permit. Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ approval 90 days prior to the effective date of the changes. Upon approval, the SMP becomes an enforceable part of the permit. This permit may be modified or, alternatively, revoked and reissued to incorporate limitations/conditions necessitated by substantive changes in sewage sludge use or disposal practices.
7. Licensed Operator Requirement -- The permittee shall employ or contract at least one Class I licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the DEQ-Valley Regional Office in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.
8. Reliability Class -- The permitted treatment works shall meet Reliability Class II.
9. Water Quality Criteria Monitoring -- The permittee shall monitor the effluent at Outfall 001 for the substances noted in Attachment A of this permit according to the indicated analysis number, quantification level, sample type and frequency. Monitoring shall be performed before December 28, 2011. Using Attachment A as the reporting form, the data shall be submitted by January 10, 2012. Monitoring and analyses shall be conducted in accordance with 40 CFR Part 136 or alternative EPA approved method. Methods other than those specified in Attachment A may be used with prior notification to and approval from DEQ. It is the responsibility of the permittee to ensure that proper QA/QC protocols are followed during the sample gathering and analytical procedures. DEQ will use these data for making specific permit decisions in the future. This permit may be modified or, alternatively, revoked and reissued to incorporate limits for any of the substances listed in Attachment A.

10. Treatment Works Closure Plan -- If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ-Valley Regional Office a closure plan for the existing treatment works. The plan shall address the following information as a minimum: Verification of elimination of sources and/or alternate treatment scheme; treatment, removal and final disposition of residual wastewater and solids; removal/demolition/disposal of structures, equipment, piping and appurtenances; site grading, and erosion and sediment control; restoration of site vegetation; access control; fill materials; and proposed land use (post-closure) of the site. The plan should contain proposed dates for beginning and completion of the work. The plan must be approved by the DEQ prior to implementation. The permittee may continue discharging until the effluent no longer meets the permit limits or the permit expires, whichever occurs first.
11. Reopeners -- This permit may be modified or, alternatively, revoked and reissued:
 - a. If any approved waste load allocation procedure, pursuant to Section 303(d) of the Clean Water Act, imposes waste load allocations, limits or conditions on the facility that are not consistent with the permit requirements; or
 - b. To incorporate technology-based effluent concentration limitations for nutrients in conjunction with the installation of nutrient control technology, whether by new construction, expansion or upgrade; or
 - c. To incorporate alternative nutrient limitations and/or monitoring requirements, should:
 - (1) the State Water Control Board adopt new nutrient standards for the water body receiving the discharge, including the Chesapeake Bay or its tributaries; or
 - (2) a future water quality regulation or statute require new or alternative nutrient control; or
 - d. If any applicable standard for sewage sludge use or disposal promulgated under Section 405(d) of the Clean Water Act is more stringent than any requirements for sludge use or disposal in this permit, or controls a pollutant or practice not limited in this permit.
12. The annual average concentration limitations for TN and/or TP are suspended during any calendar year in which the facility is considered by DEQ to be a participant in the Virginia Environmental Excellence Program in good standing at either the Exemplary Environmental Enterprise (E3) level or the Extraordinary Environmental Enterprise (E4) level; provided that the following conditions have also been met:
 - a. The facility has applied for (or renewed) participation, been accepted, maintained a record of sustained compliance and submitted an annual report according to the program guidelines;
 - b. The facility has demonstrated that they have in place a fully implemented environmental management system (EMS) with an alternative compliance method that includes operation of installed nutrient removal technologies to achieve the annual average concentration limitations; and
 - c. The E3/E4 designation from DEQ and implementation of the EMS has been in effect for the full calendar year.

The annual average concentration limitations for TN and/or TP, as applicable, are not suspended in any calendar year following a year in which the facility failed to achieve the annual average concentration limitations as required by b. above.
13. Within two years of the effective date of this permit, an additional stream model simulation based on the permitted discharge conditions for the Parkins Mills WWTF (VA0075191) and this facility shall be submitted to DEQ-Valley Regional Office. The simulation shall predict concentrations of dissolved oxygen, cBOD, and nBOD at 0.5 mile or less intervals. Appropriate conversion factors for determining cBOD₅ and non-refractory TKN shall be provided with the data. Following an evaluation of the simulation, this permit may be modified or, alternatively, revoked and reissued in order to incorporate additional or different permit conditions.

FACILITY NAME: Opequon Water Reclamation Facility
 ADDRESS: 3100 Berryville Pike
 Winchester, VA 22603

Permit No. VA0065552
 Attachment A
 Page 1 of 4

DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

OUTFALL NO. 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	5000		G or C	1/5 YR
7440-38-2	Arsenic, dissolved	(3)	96		G or C	1/5 YR
7440-43-9	Cadmium, dissolved	(3)	0.6		G or C	1/5 YR
16065-83-1	Chromium III, dissolved ⁽⁸⁾	(3)	120		G or C	1/5 YR
18540-29-9	Chromium VI, dissolved ⁽⁸⁾	(3)	6.7		G or C	1/5 YR
7440-50-8	Copper, dissolved	(3)	156		G or C	1/5 YR
7439-92-1	Lead, dissolved	(3)	38		G or C	1/5 YR
7439-97-6	Mercury, dissolved	(3)	1.0		G or C	1/5 YR
7440-02-0	Nickel, dissolved	(3)	34		G or C	1/5 YR
7782-49-2	Selenium, total recoverable	(3)	3.2		G or C	1/5 YR
7440-22-4	Silver, dissolved	(3)	11		G or C	1/5 YR
7440-28-0	Thallium, dissolved	(4)	(5)		G or C	1/5 YR
7440-66-6	Zinc, dissolved	(3)	130		G or C	1/5 YR
PESTICIDES/PCBS						
309-00-2	Aldrin	608	0.05		G or C	1/5 YR
57-74-9	Chlordane	608	0.2		G or C	1/5 YR
2921-88-2	Chlorpyrifos	622	(5)		G or C	1/5 YR
72-54-8	DDD	608	0.1		G or C	1/5 YR
72-55-9	DDE	608	0.1		G or C	1/5 YR
50-29-3	DDT	608	0.1		G or C	1/5 YR
8065-48-3	Demeton	(4)	(5)		G or C	1/5 YR
333-41-5	Diazinon	(4)	(5)		G or C	1/5 YR
60-57-1	Dieldrin	608	0.1		G or C	1/5 YR
959-98-8	Alpha-Endosulfan	608	0.1		G or C	1/5 YR
33213-65-9	Beta-Endosulfan	608	0.1		G or C	1/5 YR
1031-07-8	Endosulfan Sulfate	608	0.1		G or C	1/5 YR
72-20-8	Endrin	608	0.1		G or C	1/5 YR
7421-93-4	Endrin Aldehyde	(4)	(5)		G or C	1/5 YR
86-50-0	Guthion	622	(5)		G or C	1/5 YR
76-44-8	Heptachlor	608	0.05		G or C	1/5 YR
1024-57-3	Heptachlor Epoxide	(4)	(5)		G or C	1/5 YR

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DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

OUTFALL NO. 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)		G or C	1/5 YR
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)		G or C	1/5 YR
58-89-9	Hexachlorocyclohexane Gamma-BHC (synonym = Lindane)	608	(5)		G or C	1/5 YR
143-50-0	Kepone	(9)	(5)		G or C	1/5 YR
121-75-5	Malathion	(4)	(5)		G or C	1/5 YR
72-43-5	Methoxychlor	(4)	(5)		G or C	1/5 YR
2385-85-5	Mirex	(4)	(5)		G or C	1/5 YR
56-38-2	Parathion	(4)	(5)		G or C	1/5 YR
1336-36-3	PCB Total	608	7.0		G or C	1/5 YR
8001-35-2	Toxaphene	608	5.0		G or C	1/5 YR
60-10-5	Tributyltin	(4)	(5)		G or C	1/5 YR

BASE NEUTRAL EXTRACTABLES

83-32-9	Acenaphthene	625	10.0		G or C	1/5 YR
120-12-7	Anthracene	625	10.0		G or C	1/5 YR
92-87-5	Benzidine	(4)	(5)		G or C	1/5 YR
56-55-3	Benzo (a) anthracene	625	10.0		G or C	1/5 YR
205-99-2	Benzo (b) fluoranthene	625	10.0		G or C	1/5 YR
207-08-9	Benzo (k) fluoranthene	625	10.0		G or C	1/5 YR
50-32-8	Benzo (a) pyrene	625	10.0		G or C	1/5 YR
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)		G or C	1/5 YR
108-60-1	Bis 2-Chloroisopropyl Ether	(4)	(5)		G or C	1/5 YR
117-81-7	Bis-2-Ethylhexyl Phthalate	625	10.0		G or C	1/5 YR
85-68-7	Butyl benzyl phthalate	625	10.0		G or C	1/5 YR
91-58-7	2-Chloronaphthalene	(4)	(5)		G or C	1/5 YR
218-01-9	Chrysene	625	10.0		G or C	1/5 YR
53-70-3	Dibenz(a,h)anthracene	625	20.0		G or C	1/5 YR
95-50-1	1,2-Dichlorobenzene	624	10.0		G or C	1/5 YR
541-73-1	1,3-Dichlorobenzene	624	10.0		G or C	1/5 YR
106-46-7	1,4-Dichlorobenzene	624	10.0		G or C	1/5 YR
91-94-1	3,3-Dichlorobenzidine	(4)	(5)		G or C	1/5 YR
84-66-2	Diethyl phthalate	625	10.0		G or C	1/5 YR
131-11-3	Dimethyl phthalate	(4)	(5)		G or C	1/5 YR
84-74-2	Di-n-Butyl Phthalate	625	10.0		G or C	1/5 YR

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OUTFALL NO. 001

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
121-14-2	2,4-Dinitrotoluene	625	10.0		G or C	1/5 YR
122-66-7	1,2-Diphenylhydrazine	(4)	(5)		G or C	1/5 YR
206-44-0	Fluoranthene	625	10.0		G or C	1/5 YR
86-73-7	Fluorene	625	10.0		G or C	1/5 YR
118-74-1	Hexachlorobenzene	(4)	(5)		G or C	1/5 YR
87-68-3	Hexachlorobutadiene	(4)	(5)		G or C	1/5 YR
77-47-4	Hexachlorocyclopentadiene	(4)	(5)		G or C	1/5 YR
67-72-1	Hexachloroethane	(4)	(5)		G or C	1/5 YR
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0		G or C	1/5 YR
78-59-1	Isophorone	625	10.0		G or C	1/5 YR
98-95-3	Nitrobenzene	625	10.0		G or C	1/5 YR
62-75-9	N-Nitrosodimethylamine	(4)	(5)		G or C	1/5 YR
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)		G or C	1/5 YR
86-30-6	N-Nitrosodiphenylamine	(4)	(5)		G or C	1/5 YR
129-00-0	Pyrene	625	10.0		G or C	1/5 YR
120-82-1	1,2,4-Trichlorobenzene	625	10.0		G or C	1/5 YR
VOLATILES						
107-02-8	Acrolein	(4)	(5)		G	1/5 YR
107-13-1	Acrylonitrile	(4)	(5)		G	1/5 YR
71-43-2	Benzene	624	10.0		G	1/5 YR
75-25-2	Bromoform	624	10.0		G	1/5 YR
56-23-5	Carbon Tetrachloride	624	10.0		G	1/5 YR
108-90-7	Chlorobenzene	624	50.0		G	1/5 YR
124-48-1	Chlorodibromomethane	624	10.0		G	1/5 YR
67-66-3	Chloroform	624	10.0		G	1/5 YR
75-27-4	Dichlorobromomethane	624	10.0		G	1/5 YR
107-06-2	1,2-Dichloroethane	624	10.0		G	1/5 YR
75-35-4	1,1-Dichloroethylene	624	10.0		G	1/5 YR
156-60-5	1,2-trans-dichloroethylene	(4)	(5)		G	1/5 YR
78-87-5	1,2-Dichloropropane	(4)	(5)		G	1/5 YR
542-75-6	1,3-Dichloropropene	(4)	(5)		G	1/5 YR
100-41-4	Ethylbenzene	624	10.0		G	1/5 YR
74-83-9	Methyl Bromide	(4)	(5)		G	1/5 YR

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DEPARTMENT OF ENVIRONMENTAL QUALITY
 WATER QUALITY MONITORING

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CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
75-09-2	Methylene Chloride	624	20.0		G	1/5 YR
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)		G	1/5 YR
127-18-4	Tetrachloroethylene	624	10.0		G	1/5 YR
10-88-3	Toluene	624	10.0		G	1/5 YR
79-00-5	1,1,2-Trichloroethane	(4)	(5)		G	1/5 YR
79-01-6	Trichloroethylene	624	10.0		G	1/5 YR
75-01-4	Vinyl Chloride	624	10.0		G	1/5 YR
ACID EXTRACTABLES ⁽⁶⁾						
95-57-8	2-Chlorophenol	625	10.0		G or C	1/5 YR
120-83-2	2,4 Dichlorophenol	625	10.0		G or C	1/5 YR
105-67-9	2,4 Dimethylphenol	625	10.0		G or C	1/5 YR
51-28-5	2,4-Dinitrophenol	(4)	(5)		G or C	1/5 YR
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)		G or C	1/5 YR
104-40-51	Nonylphenol	(4)	(5)		G or C	1/5 YR
87-86-5	Pentachlorophenol	625	50.0		G or C	1/5 YR
108-95-2	Phenol	625	10.0		G or C	1/5 YR
88-06-2	2,4,6-Trichlorophenol	625	10.0		G or C	1/5 YR
MISCELLANEOUS						
16887-00-6	Chloride	(4)	(5)		C	1/5 YR
57-12-5	Cyanide, Free	(4)	10.0		G	1/5 YR
7783-06-4	Hydrogen Sulfide	(4)	(5)		G or C	1/5 YR
60-10-5	Tributyltin ⁽⁷⁾	NBSR 85-3295	(5)		G or C	1/5 YR
471-34-1	Hardness (mg/L as CaCO ₃)	(4)	(5)		C	1/5 YR

Name of Principal Exec. Officer or Authorized Agent/Title

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

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Permit No. VA0065552
Attachment A
Footnotes

Footnotes to Water Quality Monitoring Attachment A

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	1632
Chromium ⁽⁹⁾	1639
Cadmium	1637; 1638; 1639; 1640
Chromium VI	1639
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	1631
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenols requires continuous extraction.
- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D.

CONDITIONS APPLICABLE TO ALL VPDES PERMITS

A. Monitoring

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality
Valley Regional Office
P.O. Box 3000
Harrisonburg, Virginia 22801

2. Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.
3. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
4. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from his discharge on the quality of State waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into State waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such State waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon State waters in violation of Part II.F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter State waters in violation of Part II.F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter State waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect State waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II.I. if the oral report has been received within 24 hours and no adverse impact on State waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II.I.1. or 2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.I.2.

NOTE: The immediate (within 24 hours) reports required in Parts II.G, H, and I may be made to the Department's Valley Regional Office at (540) 574-7800 (voice) or (540) 574-7878 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - (1) After promulgation of standards of performance under Section 306 of the Clean Water Act which are applicable to such source; or
 - (2) After proposal of standards of performance in accordance with Section 306 of the Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements

1. Applications. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II.K.1. or 2. shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of Federal, State or local law or regulations.

O. State Law

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other State law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U.), and "upset" (Part II.V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of Solids or Sludges

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering State waters.

S. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.U.2. and U.3.

2. Notice

- a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
- b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.

3. Prohibition of bypass

- a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.U.2.
- b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I.; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of Permits

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1., this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.